



2.4/ 5 GHz 9 dBi Dual Band / Dual Polarized Omni Antenna

Antennas Technical Data Sheet

PE51OM1007

Features

- True 360 degree omni directional antennas which feature patent pending technology
- Dual polarity/dual frequency feed system in single enclosure
- MIMO - Multiple-Input and Multiple-Output, separate inputs for 2.4 GHz and 5 GHz - four connectors total
- UV-Resistant radome for all-weather operation
- Heavy duty industrial grade design

Applications

- 2.4/5 GHz IEEE 802.11a/b/g and 802.11ac applications
- Supports 1x2, 2x2 and 4x4 MIMO AP/Routers
- WiMax, WISP and WiFi applications
- Wireless video systems
- Point-to-multipoint applications

Description

The HyperGain PE51OM1007 is a professional high gain dual band/dual polarity omnidirectional base station antenna designed and optimized for 2.4 and 5 GHz frequencies. This antenna is ideally suited for multipoint applications where long range and wide coverage is desired. The DPU series stands out from the competition since they are true 360 degree omni directional antennas which feature patent pending technology.

The PE51OM1007 is actually four antennas in one, a 2.4 GHz dual polarized antenna and a 5 GHz dual polarized antenna together in a single radome. Each frequency features separate feeds for both horizontal and vertical polarities, four N-Female connectors total. This antenna incorporates advanced dual polarization technology that allows for the interoperability of two radio transmit and receive paths. This technology allows for the attenuation of unwanted signals from adjacent channels and/or co-located equipment.

The PE51OM1007 construction features a heavy-duty UV resistant PVC radome for durability and aesthetics. Designed to operate in the harshest of environments, the PE51OM1007 far exceeds other omnidirectional antennas. The included mounting system features twin heavy-duty mounting clamps and bolts for superior strength.

Configuration

Design	Omni
Band Type	Dual
Radiation Pattern	Omni Directional
Polarization	Vertical/Horizontal
Connector Type	N Female
Interface 2	N Female
Interface 3	N Female
Interface 4	N Female
Number of Ports	4
Lightning Protection	DC Ground

Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	2,400		5,800	MHz
Input VSWR			1.6:1	
Impedance		50		Ohms
Gain		6		dBi
Isolation	28			dB

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [2.4/ 5 GHz 9 dBi Dual Band / Dual Polarized Omni Antenna PE51OM1007](#)



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Input Power 100 Watts

Specifications by Band

Description	Band 1	Band 2	Band 3	Band 4	Band 5	Units
Range	2.4 to 2.5	5.1 to 5.8				GHz
Gain	6	9				dBi
Horizontal Beam Width	360	360				Degrees
Vertical Beam Width	28	14				Degrees
VSWR Max	1.6:1	1.8:1				
Maximum Input Power	100	100				Watts

Mechanical Specifications

Radome Material

PVC

Size

Radome Diameter

2.9 in [73.66 mm]

Overall Length

38.3 in [972.82 mm]

Width

2.9 in [73.66 mm]

Height

2.9 in [73.66 mm]

Mounting Mast Diameter

1.6 to 3.5 in [40.64 to 88.90 mm]

Weight

6.5 lbs [2.95 kg]

Mechanical Specification Notes:

Radome material is UV resistant PVC.

Environmental Specifications

Temperature

Operating Range

-40 to +60 deg C

Wind Loading

130 MPH [209.21 KPH]

Compliance Certifications (see [product page](#) for current document)

Plotted and Other Data

Notes:

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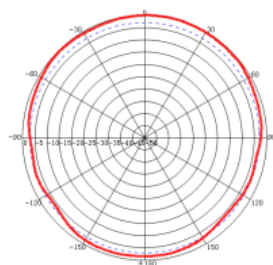


Antennas Technical Data Sheet

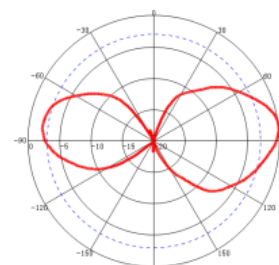
PE510M1007

RF Antenna Patterns

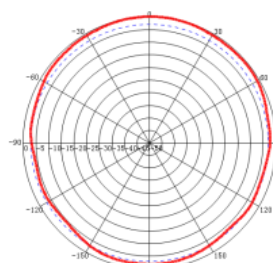
Horizontal Polarization



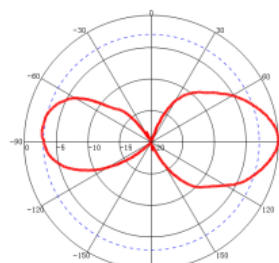
H-Plane: 2400 MHz



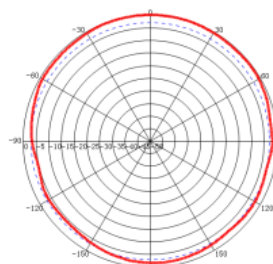
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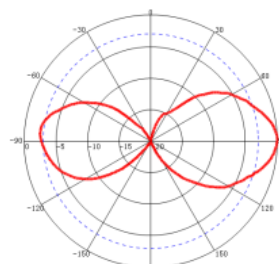
H-Plane: 2450 MHz



V-Plane: 2450 MHz



H-Plane: 2500 MHz



V-Plane: 2500 MHz

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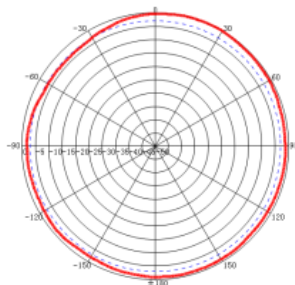
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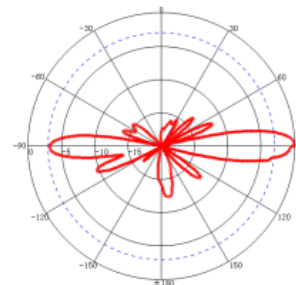
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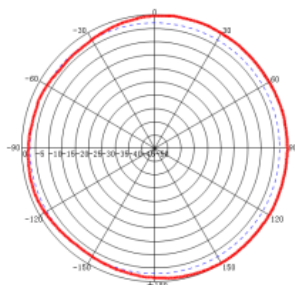
Horizontal Polarization



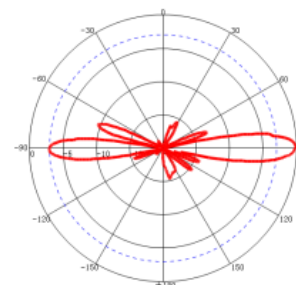
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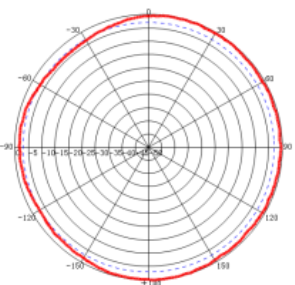
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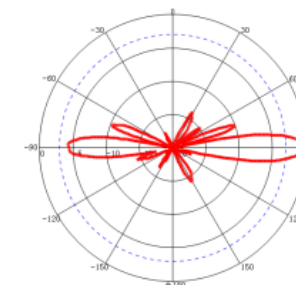
H-Plane: 5500 MHz



V-Plane: 5500 MHz



H-Plane: 5800 MHz



V-Plane: 5800 MHz

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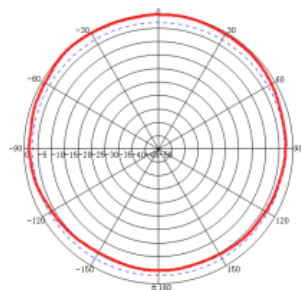
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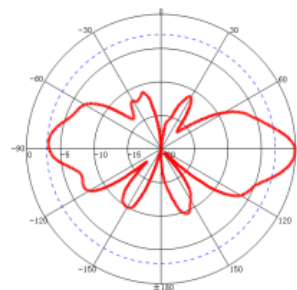
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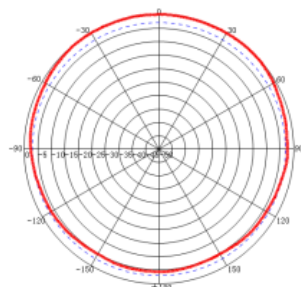
Vertical Polarization



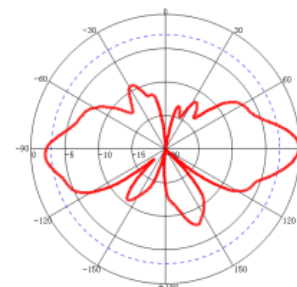
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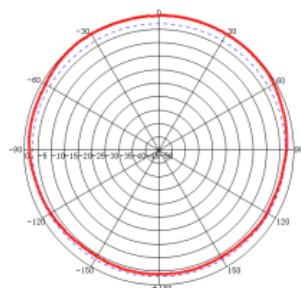
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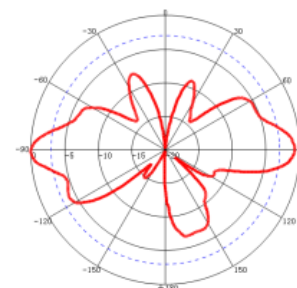
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V-Plane: 2450 MHz



H-Plane: 2500 MHz



V-Plane: 2500 MHz

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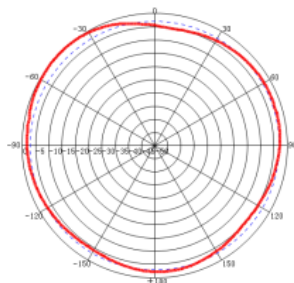
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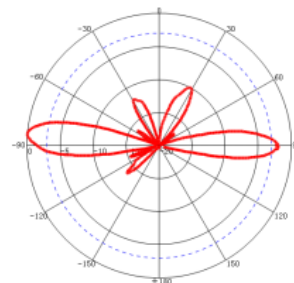
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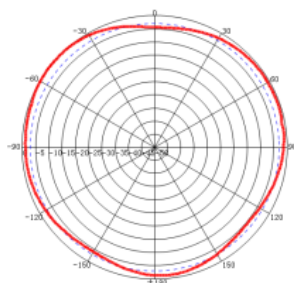
Vertical Polarization



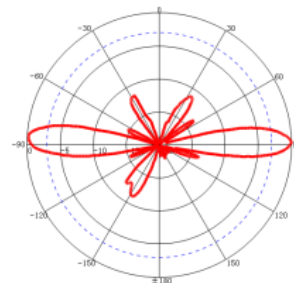
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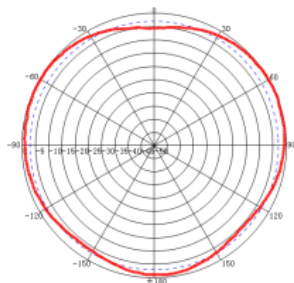
V-Plane: 5100 MHz



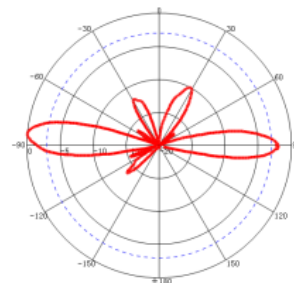
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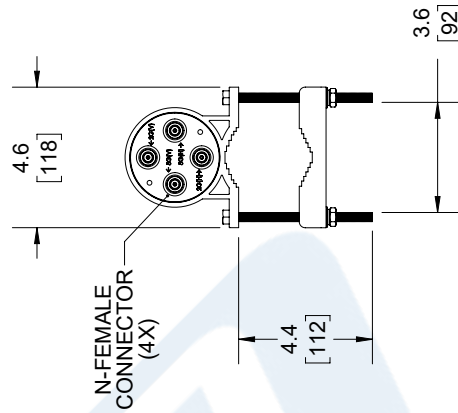
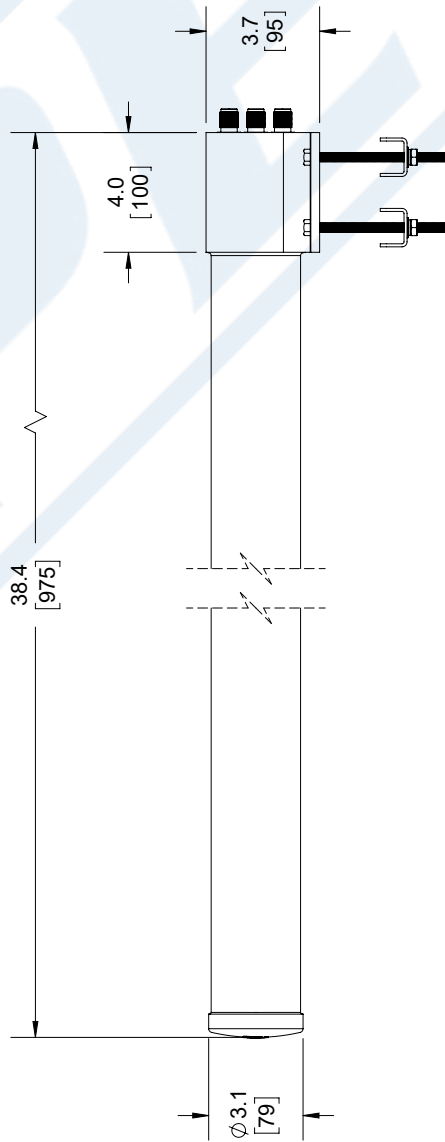
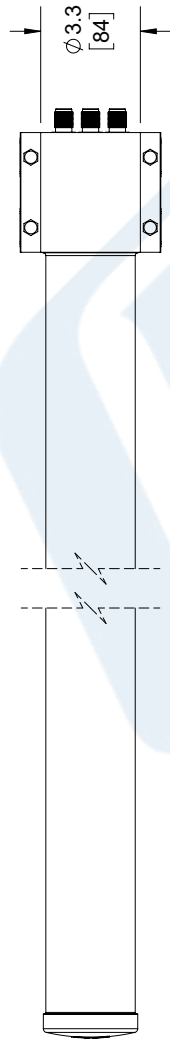
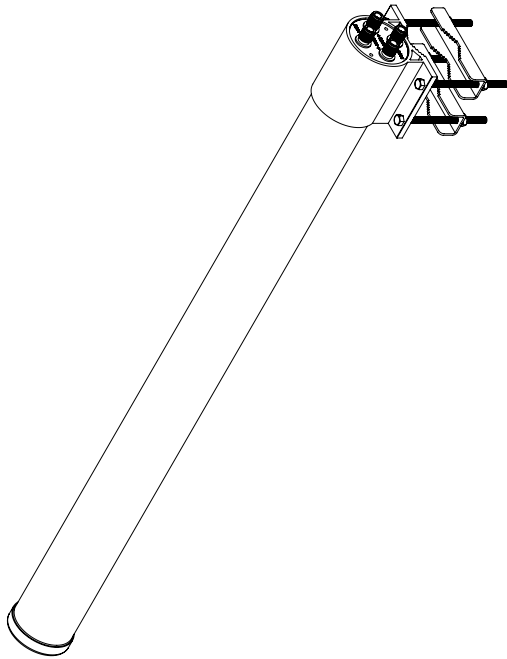
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URL: <https://www.pasternack.com/dual-antenna-6-dbi-gain-n-pe51om1007-p.aspx>

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PE510M1007 CAD Drawing
2.4/ 5 GHz 9 dBi Dual Band / Dual Polarized Omni Antenna

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	2/13/2020	M.MILLER



N-FEMALE
CONNECTOR
(4X)

UNLESS OTHERWISE SPECIFIED
LEADING DIMENSIONS ARE INCHES
DIMENSIONS IN [] ARE MILLIMETERS

TOLERANCES:

.X = ± .2 [5.08] FRACTIONS
.XX = ± .02 [.51] ± 1/32
.XXX = ± .005 [.13] ANGLES ± 1°

CABLE LENGTH (L) TOLERANCES:

L ≤ 12 [305] = +1 [25] / -0
12 [305] < L ≤ 60 [1524] = +2 [51] / -0
60 [1524] < L ≤ 120 [3048] = +4 [102] / -0
120 [3048] < L ≤ 300 [7620] = +6 [152] / -0
300 [7620] < L = +5% L / -0

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SIZE A

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EU RoHS Directive (Most Recent Released Version)

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